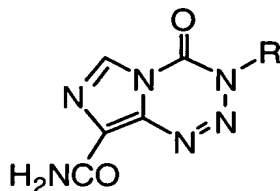


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Filed: JANUARY 16, 2002

### Claim Listing.

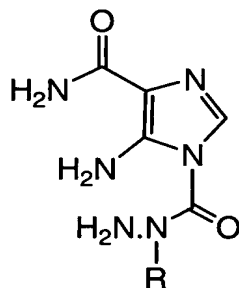
This listing of claims will replace all prior versions, and listings, of claims in the application (note that amendments are **highlighted in bold**):

Claim 1. (previously presented) A process for the preparation of a compound of the formula IA



IA

wherein R is an alkyl group having from 1 to 6 carbon atoms, which comprises reacting a compound of the formula II



II

wherein R is described above, with an oxidation/cyclization agent in the presence of an iodide compound, in an inert organic solvent, under an inert atmosphere and at a temperature, wherein said iodide is soluble in said inert organic solvent, with the proviso that when said oxidation/cyclization agent is not an iodide, the iodide compound itself is the oxidation/cyclization agent.

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Claim 2. (original) The process of claim 1 wherein R is an alkyl group having 1 to 4 carbon atoms.

Claim 3. (currently amended) The process of claim 1 wherein said oxidation/cyclization agent is selected from the group consisting of:

- a) periodic acid,
- b) iodine/potassium iodate,
- c) bromine,
- d) chlorine; and
- e) a reagent that oxidizes  $\text{NH}_2$  **which is adjacent to the group N-R in the compound formula II,** to  $\text{NZ}$ , where Z represents, Oxygen, (H, Hal), or  $\text{Hal}_2$ , and wherein Hal is chlorine, bromine or iodine.

Claim 4. (previously presented) The process of claim 1 wherein said iodide is a quarternary ammonium iodide or inorganic iodide and said inert medium is an inert organic solvent.

Claim 5. (original) The process of claim 4 wherein said iodide is selected from the group consisting of  $\text{Bu}_4\text{NI}$  and  $\text{KI}$ .

Claim 6. (previously presented) The process of claim 4 wherein said inert organic solvent is selected from the group consisting of:

- a) an amide;
- b) an acyclic ether;
- c) a cyclic ether;
- d) an alkyl alkanoate wherein the alkyl group has 1 to 4 carbon atoms and the alkanoate group has 2 to 4 carbon atoms;
- e) a halogenated hydrocarbon;
- f) toluene; and

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(g) mixtures thereof.

Claim 7. (previously presented) The process of claim 6 wherein the organic solvent is selected from the group consisting of:

- a) DMF;
- b) t-butyl-methyl ether;
- c) THF;
- d) acetonitrile;
- e) methylene chloride; and
- f) mixtures of the above solvents.

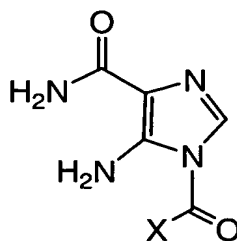
Claim 8. (original) The process of claim 7 wherein the reaction takes place at a temperature of about (-)20°C to about (+) 70°C and under a nitrogen atmosphere.

Claim 9. (previously presented) The process of claim 6 wherein:

- a) the organic solvent is a 50/50 mixture of THF/CH<sub>3</sub>CN;
- b) the oxidation/cyclization agent is H<sub>5</sub>IO<sub>6</sub>;
- c) the iodide is Bu<sub>4</sub>NI and
- d) the reaction takes place at a temperature of about 0°C to about (+)60°C.

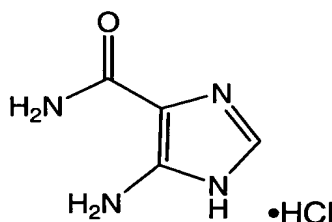
Claim 10. (currently amended) A process for preparing a compound of the formula III:

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III

which comprises reacting a compound of the formula 4:



4

with a compound of the formula X-CO-Y in the presence of an acid binding agent, wherein each of X and Y is the same or different leaving group, **with the proviso that X is not 4-nitrophenyloxy group**, to yield a compound of the formula III, **wherein X of said compound X-CO-Y is selected from the group consisting of**

**a) phenyloxy;**

**b) 2-naphthyloxy and**

**c) substituted phenyloxy, and wherein Y of said compound X-**

**CO-Y is selected from:**

**a) chlorine,**

**b) bromine, or**

**c) iodine;**

**and wherein the substituents on said substituted phenyloxy group are selected from the group consisting of:**

**a) 2-nitro;**

**b) pentafluoro;**

- c) chlorine;**
- d) bromine;**
- e) iodine, and**
- f) combinations of the above.**

Claim 11. (canceled)

Claim 12. (canceled)

Claim 13. (original) The process of claim 10 wherein said reaction of the compound of the formula 4 with a compound of the formula X-CO-Y is performed in the presence of an acid binding agent, in an inert organic solvent, under an inert atmosphere and at a temperature of about (-) 20°C to about (+) 50°C.

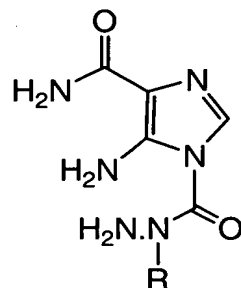
Claim 14. (original) The process of claim 13 wherein said acid binding agent is a tertiary amine.

Claim 15. (previously presented) The process of claim 13 wherein the organic solvent is selected from the group consisting of

- a) an amide;
- b) an acyclic ether;
- c) a cyclic ether;
- d) an alkyl alkanoate wherein the alkyl group has 1 to 4 carbon atoms and the alkanoate group has 2 to 4 carbon atoms;
- e) a halogenated hydrocarbon, and
- f) mixtures thereof.

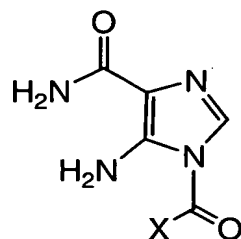
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Claim 16. (previously presented) A process for the preparation of a compound of the formula II:



II

wherein R is an alkyl group having from 1 to 6 carbon atoms, comprising, reacting a compound of the formula III:



III

wherein X is a leaving group with an alkylhydrazine having from 1 to 6 carbon atoms.

Claim 17. (original) The process of claim 16 wherein said alkylhydrazine is R-NH-NH<sub>2</sub>, wherein R is an alkyl group having 1 to 4 carbon atoms.

Claim 18. (original) The process of claim 16 wherein the reaction takes place in an inert organic solvent selected from the group consisting of:

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- a) a non-nucleophilic amine and
- b) an ether; and
- c) mixtures thereof.

Claim 19. (original) The process of claim 16 wherein X is selected from the group consisting of:

- a) phenoxy;
- b) 2-naphthoxy and
- c) substituted phenoxy, wherein the substituents are electron withdrawing.

Claim 20. (original) The process of claim 19 wherein said substituents are selected from the group consisting of:

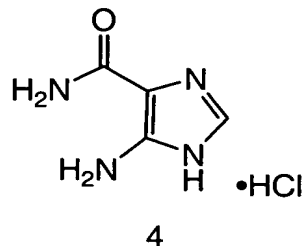
- a) 2-nitro;
- b) 4-nitro;
- c) pentafluoro;
- d) chlorine and
- e) bromine.

Claim 21. (previously presented) The process of claim 17 wherein said compound of formula II is a 1-alkyl derivative of 5-amino-4-(aminocarbonyl)-1H-imidazole-1-carboxylic acid hydrazide wherein the alkyl group contains 1 to 6 carbon atoms.

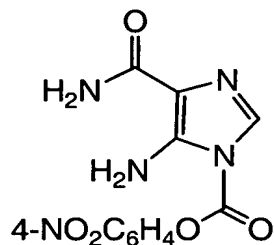
Claim 22. (previously presented) The process of claim 21 wherein said compound of formula II is 5-amino-4-(aminocarbonyl)-1H-imidazole-1-carboxylic acid 1-methylhydrazide.

Claim 23. (original) The process of claim 14 wherein compound 4:

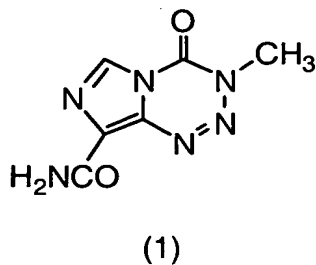
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is reacted with 4-nitrophenyl chloroformate, in the presence of triethyl amine, said reaction taking place in methylene chloride solvent, under a nitrogen atmosphere and at a temperature of about (-)20°C to about (+) 50°C to yield compound (3):



Claim 24. (previously presented) A process for preparing temozolomide  
(1):

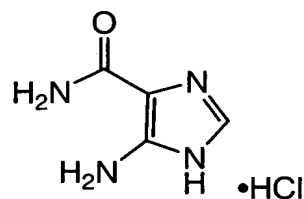


comprising:

a) reacting compound 4:

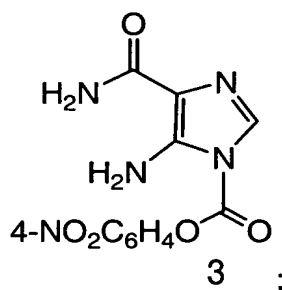


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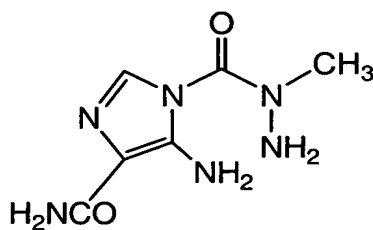


(4)

with 4-nitrophenyl chloroformate in the presence of triethylamine in  $\text{CH}_2\text{Cl}_2$ , under a nitrogen atmosphere at about  $25^\circ\text{C}$  to obtain compound (3):



b) reacting compound (3) with methylhydrazine in DMF at about  $0^\circ\text{C}$  to obtain compound (2):



(2)

, and

c) reacting compound (2) with  $\text{Bu}_4\text{NI}$  in a 50/50 mixture of THF/ $\text{CH}_3\text{CN}$ , at a temperature of about  $(+)$   $60^\circ\text{C}$  for a time of about 0 to about 60 minutes, followed by the cooling of the reaction mixture to about  $(+)$   $25^\circ\text{C}$  and the addition of  $\text{H}_5\text{IO}_6$  and stirring for about 10 to about 60 minutes to obtain temozolomide (1).

Claims 25-28. (cancelled)